

Serial No.: 10/524,301

Confirmation No.: 6371

Filed: October 11, 2005

For: PREPARATIONS BASED ON AZIRIDINO POLYETHERS AND THE USE THEREOF

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

1-14. **(Canceled)**

15. **(Currently Amended)** A composition comprising:

at least one catalyst component K comprising an initiator selected from the group consisting of an oxonium salt, an ammonium salt, a sulfonium salt, p-toluenesulfonic acid, zinc salt of p-toluenesulfonic acid, dodecylbenzenesulfonic acid salt, and combinations thereof; and

at least one basic component B comprising at least the two components Z1 and Z2,
wherein component Z1 comprises at least one polyaddition product or at least one polycondensation product having on average 2 aziridino groups or more and a molecular weight of at least 1000, with the proviso that component Z1 does not comprise polydimethylsiloxanes, and

wherein component Z2 comprises at least one compound having only 1 aziridino group, at least one compound according to component Z2 differing, in its chemical make-up, from at least one compound according to component Z1 in at least one further feature other than the number of the aziridino groups, the difference from component Z1 comprising at least one or two or more of the following further features:

- i) number average of the molecular weight,
 - ii) weight average of the molecular weight,
 - iii) polydispersity,
 - iv) composition of the polymer backbone, and
 - v) end groups, and
- wherein the amount of component Z2 in the composition is about 0.4% by weight to about 25% by weight, based on the total weight of components Z1 and Z2.

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16. **(Previously Presented)** A composition according to claim 15, wherein component Z1 comprises at least one polymer selected from the group consisting of polyethers, polyesters, and polyurethanes.

17. **(Previously Presented)** A composition according to claim 15, wherein component Z1 comprises a polyether having at least a proportion of tetrahydrofuran units.

18. **(Previously Presented)** A composition according to claim 15, wherein component Z2 comprises a compound selected from the group consisting of polyethers, polyesters, polyurethanes, and polydimethylsiloxanes.

19. **(Previously Presented)** A composition according to claim 15, wherein component Z2 comprises a compound having a molecular weight of 300 or more.

20. **(Previously Presented)** A composition according to claim 15, further comprising an additive or a mixture of two or more additives.

21. **(Currently Amended)** A process for the preparation of a composition, comprising:
providing a catalyst component K comprising an initiator selected from the selected from the group consisting of an oxonium salt, an ammonium salt, a sulfonium salt, p-toluenesulfonic acid, zinc salt of p-toluenesulfonic acid, dodecylbenzenesulfonic acid salt, and combinations thereof; and

preparing basic component B by a process comprising mixing two components Z1 and Z2 together,

wherein component Z1 comprises at least one polyaddition product or at least one polycondensation product having on average 2 aziridino groups or more and a molecular weight of at least 1000, with the proviso that component Z1 does not comprise polydimethylsiloxanes, and

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wherein component Z2 comprises at least one compound having only 1 aziridino group, and at least one compound according to component Z2 differing, in its chemical make-up, from at least one compound according to component Z1 in at least one further feature other than the number of the aziridino groups, the difference from component Z1 comprising at least one or two or more of the following further features:

- i) number average of the molecular weight,
- ii) weight average of the molecular weight,
- iii) polydispersity,
- iv) composition of the polymer backbone, and
- v) end groups, and

wherein mixing two components Z1 and Z2 together comprises mixing an amount of component Z2 that is about 0.4% by weight to about 25% by weight, based on the total weight of components Z1 and Z2.

22. **(Currently Amended)** A dental material comprising at least one basic component B and at least one catalyst component K, wherein basic component B comprises at least one composition according to claim 15, and wherein catalyst component K comprises at least one catalyst for the cross-linking of at least part of basic component B.

23. **(Previously Presented)** A dental material according to claim 22, wherein after mixing of basic component B and catalyst component K at room temperature, the dental material has within a period of 20 minutes or less, a Shore A hardness of at least 80% of the value of Shore A hardness reached after 24 hours.

24. **(Currently Amended)** A method of using a dental material according to claim 22 comprising forming to form coatings, impression materials, seals, or dental moulding materials.

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25. **(Previously Presented)** A method of accelerating the setting rate of a dental material according to claim 22, comprising using a compound having only 1 aziridino group.

26. **(Currently Amended)** A kit for producing dental materials, comprising a composition according to claim 15, basic component B and at least one catalyst component K comprising a catalyst for the cross-linking of at least part of basic component B, wherein basic component B comprises at least one composition according to claim 15, and wherein the components B and K are present separated from one another.

27. **(Previously Presented)** A container or mixing device comprising a dental material according to claim 22.

28. **(Currently Amended)** A composition comprising:
at least one catalyst component K comprising an initiator selected from the selected from the group consisting of an oxonium salt, an ammonium salt, a sulfonium salt, p-toluenesulfonic acid, zinc salt of p-toluenesulfonic acid, dodecylbenzenesulfonic acid salt, and combinations thereof; and

at least one basic component B comprising at least the two components Z1 and Z2,
wherein component Z1 comprises at least one polyaddition product or at least one polycondensation product selected from the group consisting of polyethers, polyesters, and polyurethanes, and having on average two aziridino groups or more and a molecular weight of at least 1000, and

wherein component Z2 comprises at least one compound having only one aziridino group, and wherein the at least one compound having only one aziridino group differs, in its chemical make-up, from at least one compound according to component Z1 in at least one further feature other than the number of the aziridino groups, the difference from component Z1 comprising at least one or two or more of the following further features:

- i) number average of the molecular weight,

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- ii) weight average of the molecular weight,
- iii) polydispersity,
- iv) composition of the polymer backbone, and
- v) end groups, and

wherein the amount of component Z2 in the composition is about 0.4% by weight to about 25% by weight, based on the total weight of components Z1 and Z2.

29. **(Currently Amended)** A process for the preparation of a composition, comprising:
providing a catalyst component K comprising an initiator selected from the selected from the group consisting of an oxonium salt, an ammonium salt, a sulfonium salt, p-toluenesulfonic acid, zinc salt of p-toluenesulfonic acid, dodecylbenzenesulfonic acid salt, and combinations thereof; and

preparing basic component B by a process comprising mixing two components Z1 and Z2 together,

wherein component Z1 comprises at least one polyaddition product or at least one polycondensation product selected from the group consisting of polyethers, polyesters, and polyurethanes, and having on average two aziridino groups or more and a molecular weight of at least 1000, and

wherein component Z2 comprises at least one compound having only one aziridino group, and wherein the at least one compound having only one aziridino group differs, in its chemical make-up, from at least one compound according to component Z1 in at least one further feature other than the number of the aziridino groups, the difference from component Z1 comprising at least one or two or more of the following further features:

- i) number average of the molecular weight,
- ii) weight average of the molecular weight,
- iii) polydispersity,
- iv) composition of the polymer backbone, and
- v) end groups, and

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wherein mixing two components Z1 and Z2 together comprises mixing an amount of component Z2 that is about 0.4% by weight to about 25% by weight, based on the total weight of components Z1 and Z2.

30-33. (Canceled)